

**To:** mark.gowdy@waterboards.ca.gov[mark.gowdy@waterboards.ca.gov]  
**Cc:** Niiya, Karen@Waterboards[Karen.Niiya@waterboards.ca.gov]; Riddle, Diane@Waterboards[Diane.Riddle@waterboards.ca.gov]; Cabrera-Stagno, Valentina[Cabrera-Stagno.Valentina@epa.gov]  
**From:** Foresman, Erin  
**Sent:** Mon 4/21/2014 9:22:59 PM  
**Subject:** Phase II technical support?  
FINAL SWRCB 100112 WKRSHP2 EPAONLY -- X2 slide.pptx

Hi Mark,

Some technical support funding became available to our Bay Delta team again this year, similar to last year, and Valentina and I have been thinking about ways to support the Phase I and II updates to the WQCP. Will you be the person who does Phase II modeling when the modeling work for Phase I is finished? If so, Valentina and I were hoping you might have some ideas about areas where support would be helpful.

Some of the ideas I had for Phase II are listed in the email below that I sent to Karen earlier today. Valentina and I were talking just now and were thinking we'd love advice from you too if you can spare some time, especially the ideas that involve CALSIM.

If you have any thoughts on this, we'd love to hear them, hopefully by Friday of this week. I realize SB is v. impacted by drought work and the turn-around time is super-fast. Valentina and I are meeting with others at EPA about how to spend these funds next Monday.

Erin Foresman

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*Schedule: M 8:30a - 5:00p; T - F 8:30a - 3:00p*

**From:** Foresman, Erin

**Sent:** Monday, April 21, 2014 9:20 AM  
**To:** 'Niiya, Karen@Waterboards'  
**Cc:** Cabrera-Stagno, Valentina  
**Subject:** Are you around this morning or tomorrow to chat?

Hi Karen,

Valentina and I are talking again today about potential support tasks for our contract dollars. I always have in mind technical/scientific work at the consulting level that could support Phase II update of WQCP. If you have anything in mind, I'd love to hear about it.

It's been a while since I looked at Phase II and reminded myself of the list of review items/potential changes which are:

1. Delta outflow objective – some ideas for tech support

- Run CALSIM to estimate the amount of water available for export by meeting a range of spring and fall X2 values (e.g., spring X2 50-82 km and fall 60-90, based in 1921-2011 mean monthly unimpaired flow ranges). The idea is to mimic the pattern of the natural hydrograph in the Delta by choosing these X2 ranges, see attached slide. The assumption is the natural hydrograph will benefit native resident and migratory fishes and limit habitat for invasive fishes like lg. mouth bass. Run CALSIM to meet EC and CI WQS within the upper estuary and estimate the amount of water available export. This would also include a Climate Change sensitivity analysis.

- Run CALSIM to for the SWRCB's suggested BDCP alternative (1.5 MAF extra outflow) and all of the requirements in the SWRCB request (I don't think this was done for BDCP).

2. E/I objective

3. Delta X channel objectives

4. Suisun Marsh objectives

5. Potential new reverse flow objectives for O & MR

6. Potential new floodplain flows

## 7. Monitoring and Special Studies -- some ideas for tech support

- Design a bottom salinity monitoring network and estimate the cost of installation and continued operation. There have been a lot of technological advancements since the 1995 plan and monitoring and special studies plan was adopted. We can measure bottom salinity directly now instead of measuring surface salinity and using the flawed NDOI equation to calculate bottom salinity.
- Draft coordinated monitoring plan – Create a draft monitoring plan that integrates BO, ITP, and D 1641 monitoring elements. Start by evaluating all the monitoring in the regulatory instruments within the Delta and Suisun (upper estuary), identify funding sources, responsible agencies, etc...

I assume you are v. busy with drought work and/or other items. If you have some time to think about this and talk today or tomorrow I think we would all benefit from your ideas.

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